

(a) In the Specification

[0030] In accordance with a first aspect of the invention a system for the construction of life size play structures comprises a multiplicity of inflatable blocks, wherein each block further includes an identical top polygonal surface 11 and bottom polygonal surface 12, each surface comprising a multiplicity of surface seams 42 at the periphery of the surface and each surface seam comprising two ends sL1, sL2.

[0031] In accordance with a second aspect of the invention each block further includes a multiplicity of side panels 45, each joining the a top surface seam with the corresponding bottom surface seam, ~~each side panel having two ends, and~~ each side panel affixed to an adjacent side panel by means of a side panel seam 50 having two ends sL2, sL3.

[0091] L is the length sL1-sL2 of ~~[[an]]~~ a ~~edge~~ surface seam 42 of the block;

[0092] n is the number of connectors on the same surface ~~edge~~ seam 42 of the block; and

[0093] DC is equal to d, which is the distance from the end sL2 of the surface ~~edge~~ seam 42 of the block to the mid-point 51 of the first, or nearest, connector.

[107] The most critical dimension is the distance between the second slit 28 and the base 41 of the flap 18 where the heat sealing is done. The calculation depends upon the amount of bulge in side panels 44 of the blocks. Because of the nature of the material and its construction and internal support, it is almost impossible to construct a block which has perfectly right-angle corners. Rather, the sides bulge out, so that blocks set side by side and touching do not have their end seams 50 in contact. This situation may be further understood by referring now to Figure 11 which is ~~a plan~~ an elevation view of two blocks in contact, with the top surfaces 11 in view. The size of the bulges 49 are exaggerated relative to the size of the blocks for illustrative purposes.

[119] D = Total distance between bases of the flap ~~47~~ 41 and the strap 47 ~~41~~

[120] E = Distance between tip of the flap 48 and strap base 47 ~~41~~

[134] Finally, Figure 10 illustrates one of most powerful and enjoyable aspects of the play structures. It is now possible to create multiple openings such as doors, skylights, windows, secret entrances/exits by means of connecting along only a single edge of a particular unit. As shown, an upward and downward motion that a skylight 36 would exhibit is now possible~~36~~ . Also possible is a sideways motion as would commonly be exhibited by a swinging door 37.